

Prevention of Skin Cancer by Reducing Exposure to UV Light through Communitywide, Multi-Component Interventions

Skin cancer is the most common cancer in the United States. The strongest, preventable risk factor for developing skin cancer is exposure to the sun's ultraviolet (UV) rays. However, at least 50% of children as well as adults do not protect themselves adequately from UV exposure. While knowledge of the risk of sun exposure and the use of sunscreen and other forms of sun protection have improved over the past two decades, a gap still exists between knowledge and behavior. The question is then, what are effective strategies to improve sun protective behaviors?

A systematic review of published studies, conducted on behalf of the Task Force on Community Preventive Services by a team of experts, found insufficient evidence (i.e. studies) to determine the effectiveness of community wide, multi-component interventions in improving sun-protective behaviours or reducing UV exposure. Recommendation outcomes focused on changes in the following outcomes: 1) improving "covering up" behavior [i.e. wearing protective clothing such as a shirt, long pants, and hat], or 2) increase in shade use or staying out of the sun during peak UV hours]. Sunscreen use was considered a secondary outcome meaning that a change in sunscreen use alone would not result in a recommendation but it should have accompanied one of the two recommendation outcomes. It is important to remember that **this finding does not mean this intervention does not work**, but rather indicates that additional research is needed to determine its effectiveness.

Background on community-wide, multi-component interventions designed to improve sun-safety behaviors

- Comprehensive communitywide interventions were defined as operating on multiple levels (i.e. include multiple individual directed, setting specific and communitywide components), being designed to address a substantial portion of the population in a defined area, and conducted over period of a year or more.
- Community wide programs are combinations of the following components which are integrated within a defined geographic area (city, state, province, or country):
 - individual-directed strategies
 - media campaigns
 - environmental and policy changes
- Interventions were usually delivered with a defined theme, name or logo, and set of messages.

Findings from the systematic review

Search results:

- 6000+ titles and citations screened
- 159 articles reviewed
- 85 studies included in one of the 9 intervention reviews conducted by the Task Force
- 8 qualifying studies

See citation information for all included and qualifying studies ([hyperlink to xml file](#))

- Studies were included in this review if they occurred in a defined geographic area and included at least two components and more than a single setting.
- In its review of available studies on the effectiveness of this intervention, eight (8) studies were identified which assessed a variety of outcomes including covering-up or sun avoidance behaviors. These studies were not considered sufficient for the Task Force to base a recommendation on given limitations in study designs and execution as well as the small number of studies.
- Additional detail regarding key components of research in this area that could be improved so as to increase the body of evidence of effectiveness is available as part of a broad set of research questions.

Action Items

- Use this finding and suggestions for improvement in research components and contact information from [Cancer Control PLANET](#) to find local cancer prevention partners to conduct or seek resources for further research.

Publications:

- **MMWR/Recommendations and Reports** – Fall 2003. A summary report on findings.

The Guide to Community Preventive Services (Community Guide) provides recommendations on population-based interventions to promote health and to prevent disease, injury, disability, and premature death, appropriate for use by communities and healthcare systems. For more information about the Community Guide (including links to publications and a variety of resources) see www.thecommunityguide.org and for more information about Task Force findings on skin cancer prevention see www.thecommunityguide.org/cancer/

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